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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/685,284 10/10/00 LUMPKIN

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PM82/0914

KRAMER, D	EXAMINER
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ART UNIT	PAPER NUMBER
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DATE MAILED: 09/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/685,284

Applicant(s)

Lumpkin et al

Examiner

Devon Kramer

Art Unit

3613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 29, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) 1 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 8, 10-13, and 16 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 9, 14, 15, and 17 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 7
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Art Unit: 3613

DETAILED ACTION

Information Disclosure Statement

1. One of the information disclosure statements filed August 29, 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the patent numbers listed on the IDS are the same as those provided by applicant, but the numbers do not match up with the names and publication dates listed on the IDS. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 C(1).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-5, 8, 10-13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (6230850) in view of Tosdale.

Art Unit: 3613

Huang provides a cable actuated mechanical disc brake caliper comprising: a caliper housing (1); a cable guide (figure 2) rigidly fixed to the housing, the cable guide having a cable receiving bore extending along a guide axis for axially receiving a cable; a lever arm (6) pivotably attached to the caliper housing for pivoting about a pivot axis, the lever arm being operatively associated with a brake pad to move the brake pad between a retracted and an extended position as the lever arm is pivoted in a first direction from a non-actuated position to a fully actuated position, the lever arm including a cable clamp where it is attached to the lever, the clamp radially spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a selected orientation relative to the lever arm at an attachment point, the attachment point being essentially coincident with the guide axis with the cable arm in the fully actuated position; and the cable clamp clamps along an axis perpendicular to the pivot axis. Huang lacks a guide surface curved about the pivot axis.

Tosdale provides a guide surface (figure 3) curved, concentric and eccentric about a pivot axis (22) having a first portion attached to the lever arm (20) with the attachment point essentially coincident therewith and a second portion (the portion shaded along the curve of the wire in figure 3) circumferentially spaced from the first portion, the second portion being essentially tangent to the guide axis with the lever arm in the non-actuated position; the guide axis remains tangent to the curved surface as the lever pivots.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the caliper of Huang with the cable guide as taught by Tosdale in order to

Art Unit: 3613

reduce the stress acting on the cable and the clamp and further to distribute the forces transmitted through the cable evenly throughout the length of the guide surface.

4. Claim 2-5, 8, 10-13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyomasu in view of Tosdale.

Toyomasu provides a cable actuated mechanical disc brake caliper comprising: a caliper housing (1); a cable guide (29) rigidly fixed to the housing, the cable guide having a cable receiving bore extending along a guide axis for axially receiving a cable; a lever arm (16a) pivotably attached to the caliper housing for pivoting about a pivot axis, the lever arm being operatively associated with a brake pad to move the brake pad between a retracted and an extended position as the lever arm is pivoted in a first direction from a non-actuated position to a fully actuated position, the lever arm including a cable clamp where it is attached to the lever, the clamp radially spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a selected orientation relative to the lever arm at an attachment point, the attachment point being essentially coincident with the guide axis with the cable arm in the fully actuated position; the cable clamp clamping along an axis perpendicular to the pivot axis. Toyomasu lacks the teaching of a curved guide surface.

Tosdale provides a guide surface (figure 3) curved, concentric and eccentric about a pivot axis (22) having a first portion attached to the lever arm (20) with the attachment point essentially coincident therewith and a second portion (the portion shaded along the curve of the wire in figure 3) circumferentially spaced from the first portion, the second portion being essentially

Art Unit: 3613

tangent to the guide axis with the lever arm in the non-actuated position; the guide axis remains tangent to the curved surface as the lever pivots.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the caliper of Toyomasu with the cable guide as taught by Tosdale in order to reduce the stress acting on the cable and the clamp and further to distribute the forces transmitted through the cable evenly throughout the length of the guide surface.

Allowable Subject Matter

5. Claims 6, 7, 9, 14-15, 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

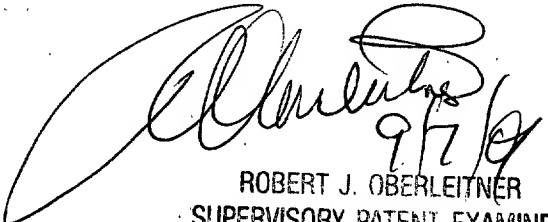
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sugimoto teaches the use of a curved guide surface for the cable.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon Kramer whose telephone number is (703) 305-0839.

DK

September 6, 2001


9/7/01
ROBERT J. OBERLEITNER
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